PRESS RELEASE
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The EU project 5G-IANA successfully finalised the Open Call #1

The Open Call was open from February 22nd to June 17th

5G-IANA Open Call #º

5G-IANA started in June 2021 and is funded by the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 101016427. The project aims at providing an open 5G experimentation platform, on top of which third party experimenters, i.e., Small and Medium Enterprises (SMEs) in the Automotive vertical sector will have the opportunity to develop, deploy and test their services. An Automotive Open Experimentation Platform (AOEP) will be specified, as the whole set of hardware and software resources that provides the computational and communication/transport infrastructure as well as the management and orchestration components, coupled with an enhanced Network Application Toolkit tailored to the Automotive sector, for simplifying the design and onboarding of new Network Applications.

More information about the project is available at https://www.5g-iana.eu/

5G-IANA Open Call #1 opened for SMEs and start-ups from Europe. The Open Call allowed them to run their automotive network applications on top of the platform provided by the 5G-IANA project making use of 5G connectivity. The 5G-IANA consortium supported its participants to develop and integrate their innovative idea using the 5G-IANA platform, facilitating in parallel the developed Repository of Virtual Network Functions (VNFs).

Link Robotic's experiment

Link Robotics' prototype VINS-RTK was introduced in scope of a 5G-IANA Micro Project and we want to tell about the experimental results taken.

The VINS-RTK is a prototype which uses an Inertial Measurement Unit (IMU), a monocular camera, and RTK-capable Global Navigation Satellite System (GNSS) receiver to calculate the position, orientation and velocity of the vehicle. It uses Multi-State Constraint Kalman Filter (MSCKF) and is capable of giving the real-time output at 10 Hz.

The service is a localization system for robots and autonomous/connected vehicles. It uses a monocular camera, inertial measurement unit (IMU) and RTK-capable (Real Time Kinematics) GNSS (Global Navigation Satellite System) receiver. Also, inside the enclosure, there is a 5G GSM modem from Simcom (SIM8200EA) connected to a custom interface card.

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The assessment of the product performance was done with two ground experiments. A van vehicle from Nokia was used. The enclosure is mounted onto the vehicle by using vacuum suction cups. Two cables for ethernet and power were used. There was a Li-po battery for powering the device. The software inside the enclosure is run while the vehicle is driving inside the pre-defined path. The vehicle is driven by a person from Nokia manually.

Two test results are given which are conducted near the university campus. Along the whole paths the 5G coverage was available except for some regions. In these regions, the RTK service cannot be reached, so the fix was only GNSS fix giving accuracy about 1 meter.

Within the 5G covered regions, the GNSS receiver was able to go into RTK mode which can give below meters accuracy depending on the factors such as satellites in view, the large buildings, trees etc. The RTK could perform about 1 centimetre accuracy at best. In the regions with low quality GNSS coverage, e.g. no 5G coverage, the software could perform and continued giving the position-orientation information. In the regions with low quality GNSS coverage, e.g. no 5G coverage, the software could perform and continued giving the position-orientation information.

And the award goes to…

After successfully conducting their experiment, we would like to congratulate Link Robotics for their award in the Open Call #1.

You can see a short interview with them here.

Open Call #2

We would like to remember that our Open Call #2 is accepting applications right now, and the Info Day will take place on 19th March (registration here), so stay tuned and don't miss your chance to participate!

Website: https://www.5g-iana.eu/

Twitter: @IANA_5G, https://twitter.com/IANA_5G

LinkedIn: 5G-IANA, https://www.linkedin.com/company/5g-iana

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